REMARKS

A first Office Action was mailed on March 26, 2004. Claims 1 – 33 are pending in the present application. Applicants amend claims 1, 7, 8, 10, 11, 13, 19, 20, 21, 22, 25 and 27. No new matter is added.

REJECTION UNDER 35 U.S.C. § 112

Claims 1 – 33 are rejected under the second paragraph of 35 U.S.C. § 112 as being indefinite. Specifically, the Examiner points to the use of the term "so as to route" in independent claims 1, 7, 8, 10, 11, 13, 19 - 22 and 25 as making unclear whether the limitations that follow this term are part of the claimed invention. Applicants amend each of claims 1, 7, 8, 10, 11, 13, 19 - 22 and 25 to replace the term "so as to route" with one of the terms "and routing" and "for routing" to make clear that the limitations that follow this term are considered to be part of the claimed invention, and respectfully request that the rejection be withdrawn.

Applicants also amend claim 27 to correct a minor typographical error.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-33 are rejected under 35 U.S.C.§103 as being unpatentable over US Patent 6,584,071 to Kodialam et al. Applicants respectfully traverse this rejection.

In independent claims 1, 7, 8, 10, 11, 13, 19 – 22 and 25, Applicants disclose a method and apparatus directed to providing transmission of traffic in a traffic-load dispersing manned from and ingress node to an egress node, through a communication network in which a plurality of label switched paths (LSPs) between the ingress and egress nodes are provided in advance to support the traffic-load dispersing transmission.

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In sharp contrast, Kodialam discloses a method for routing transmission traffic with service level guarantees enabled by shortest path routing through selected nodes of a packet network via a requested LSP. In other words, the method of Kodialam is directed to determining the nodal paths that set up the LSPs.

As compared to Applicants claimed invention, Kodialam fails to teach or suggest a method for delivering incoming transmission traffic to an ingress node in a traffic-load dispersing manner from the ingress node to the egress node keyed by an assignment of traffic to a plurality of forwarding equivalent class (FEC) elements, and by assignment of the plurality of FEC elements to the plurality of LSPs. Rather, according to the method of Kodialam, once an LSP has been selected, the method of Kodialam provides a means for establishing shortest path routing through the LSP.

As highlighted in Applicants' independent claims 8 and 20, as a means for assigning the plurality of FEC elements to the plurality of LSPs to support traffic-load dispersing transmission, "each respective label switched path [has] a weight factor, and the number of forwarding elements allocated to each of the label switched paths [is] proportional to the weight factor of the label switched path". The Examiner suggests that Kodialam also teaches an analogous use of weight factors (see, e.g., column 10, line 6 though column 11, line 12 of Kodialam). However, in sharp contrast to Applicants' claimed method the weights taught by Kodialam are assigned to critical links that are to be avoided in forming a shortest path for a selected LSP (see, e.g., column 9, lines 26 – 29 of Kodialam) rather than being assigned to LSPs for the purpose of assigning FEC elements to LSPs. By this means, Applicants' claimed invention provides a predetermined packet transfer ratio for each LSP in order to achieve the desired dispersion of traffic load.

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As highlighted in Applicants' independent claims 10, 11, 21 and 22, Applicants' claimed invention and 20, as a means for assigning the plurality of FEC elements to the plurality of LSPs to support traffic-load dispersing transmission, the plurality of FEC elements are allocated "at the ingress node to each label switched path of the plurality of label switched paths in order of the respective priorities of the plurality of label switched paths, [and] an amount of traffic is delivered to label switched paths having a first priority until the amount exceeds a predetermined threshold". In addition, according to independent claims 11 and 22, the plurality of FEC elements are allocated to the plurality of LSPs "in order of the respective forwarding priorities of the plurality of forwarding elements".

The Examiner suggests that using priorities for traffic engineering is a well-known feature of traffic engineering in MPLS implementations using schedulers (see, e.g., schedulers 603, 604 in FIG. 6 of Kodialam). Kodialam discloses that schedulers 603, 604 provide queues and service scheduling in order to maintain quality of service levels (see, e.g., column 12, lines 22 —25 of Kodialam). However, in sharp contrast to Applicants' claimed invention, Kodialam fails to teach or suggest a priority scheme that is used to <u>first allocate traffic to LSPs having a first priority until the amount of traffic allocated exceeds a predetermined threshold</u>, and thereafter to allocate traffic to other LSPs having a second priority lower than the first priority.

Accordingly, Applicants respectfully submit that independent claims 1, 7, 8, 10, 11, 13, 19 – 22 and 25 are not made obvious by the teachings of Kodialam, and are therefore in condition for allowance. As dependent claims 2 – 6, 9, 12, 14 – 18, 23, 24 and 26 – 33 each depend from one of allowable claims 1, 7, 8, 10, 11, 13, 19 – 22 and 25, Applicants further submit that claims 2 – 6, 9, 12, 14 – 18, 23, 24 and 26 – 33 are in condition for allowance for at least this reason.

CONCLUSION

In view of the remarks set forth above, this application is in condition for allowance which action is respectfully requested. However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,

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